

Appl. No. 10/630,079  
Amdt. Dated July 16, 2004  
Reply to Office Action mailed June 28, 2004

### REMARKS

Claims 1-20 are currently pending. No amendments are being made at this time.

The Applicant notes with appreciation the Examiner's acknowledgment of the Information Disclosure Statement filed July 30, 2003.

Claims 1-20 were rejected under 35 U.S.C. § 112, first paragraph as failing to comply with the enablement requirement as to the claimed limitation: "so as to cause displacement of materials included in the target area volume."

The Applicant traverses this rejection.

Sections 2164.01(a)(b)(c) of the MPEP state: "The test of enablement is whether one reasonably skilled in the art could make or use the invention from the disclosures in the patent coupled with information known in the art without undue experimentation. ... As long as the specification discloses at least one method for making and using the claimed invention that bears a reasonable correlation to the entire scope of the claim, then the enablement requirement of 35 U.S.C. § 112 is satisfied. ... If a statement of utility in the specification contains within it a connotation of how to use, and/or the art recognizes that standard modes of administration are known and contemplated, 35 U.S.C. § 112 is satisfied."

In his rejection, the Examiner refers to the Applicant's paragraph #0023, which states: "[T]he transducer 15 is commanded to apply a high intensity, low frequency tone burst or single acoustical pulse to the underwater floor 9 that causes elastic floor material to move a detectable amount, but has little or no effect on objects of relatively higher elasticity or density." The Examiner then concludes that the specification does not describe a specific acoustic pulse that would enable "displacement of materials included in the target area volume" as claimed by the Applicant.

To that end, the Applicant refers the Examiner to paragraph #0045 of the originally filed specification, which states: "The displacement between images can be provided by a high-intensity, low frequency toneburst from transducer 15 of Figure 2. The acoustical frequency and intensity are selected to provide displacement of the floor 9 sufficient for the imaging interferometer (camera 1) to detect the motion. In one particular embodiment, the acoustical transducer 15 transmits a signal having a frequency of 500 Hz, and an intensity of

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10 Watts/cm<sup>2</sup>, which provides adequate displacement to the floor 9 to detect buried objects. The frequency and intensity of the low frequency vibratory energy may be varied according to the materials of the underwater floor and the resolution capabilities of the imaging interferometer."

Given this detailed disclosure describing characteristics of the acoustic pulse, the Applicant respectfully submits that one reasonably skilled in the art could make and/or use the claimed invention without undue experimentation, and that the enablement requirement is satisfied.

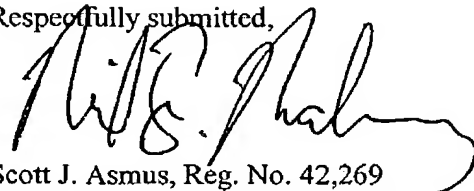
For at least this reason, the Applicant respectfully requests the Examiner to reconsider and withdraw this rejection of claims 1-20 under 35 U.S.C. § 112, first paragraph.

Claims 1-20 were rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over the claims of the commonly owned parent application, now U.S. Patent No. 6,700,833.

The Applicant is providing a terminal disclaimer in conjunction with this response to obviate this obviousness-type double patenting rejection, and respectfully requests the Examiner to withdraw the rejection.

The Applicant believes the above amendments and remarks to be fully responsive, thereby placing this application in condition for allowance. Favorable action is solicited. The Examiner is kindly invited to contact the undersigned attorney by telephone, facsimile, or email for quickest resolution, if there are any remaining issues.

Respectfully submitted,



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